FY 2001-2002 USEPA Great Lakes National Program Office
Request for Preproposals

FY 2001 - 2002 Great Lakes National Program Office Request for Preproposals

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I. SUMMARY

The U.S. Environmental Protection Agency's Great Lakes National Program Office (GLNPO) is inviting submissions of Preproposals for innovative projects furthering protection and clean up of the Great Lakes ecosystem. The deadline for Preproposals is February 16, 2001. We are targeting a total of $3.15 million to award in the summer and fall of FY 2001 for Great Lakes projects pertaining to:

Contaminated Sediments - $1,400,000
Pollution Prevention and Reduction (Binational Toxics Strategy) - $500,000
Ecological (Habitat) Protection and Restoration - $450,000
Invasive Species - $300,000
Indicator Development - $300,000
Strategic or Emerging Issues - $200,000

Preproposals will be evaluated through the process described in this document, using both the General Criteria described in Section V and the applicable Specific Criteria described in Section VI. Work under these awards would generally be done during FY 2002.

Applicants should submit Preproposals using the PSS2001 software available from this website. We request that you also register with us now, so that we can update you on our funding process, any changed deadlines, and work we are doing to allow applicants to apply online.

Appendices to this document include "Line-by-Line" Instructions to PSS2001 Data Entry, a description of the purpose of USEPA's Great Lakes program and USEPA's Great Lakes priorities, a listing of key USEPA Contacts for those priorities, and a description of other GLNPO activities and funding.

II. BACKGROUND INFORMATION.

GLNPO has provided funding for some 525 projects totaling $54 million between 1993 and 2000. These projects are summarized at the "Project Summaries" links to http://www.epa.gov/glnpo/fund/.

Development of this Request for Preproposals began with the Fall Great Lakes Planning Meeting of mid-level environmental managers from Great Lakes State, Tribal, and Federal programs. This group has met annually to discuss Great Lakes priorities and the criteria for projects to be funded by GLNPO in the upcoming year. General funding priorities and targets for this Great Lakes Request for Preproposals were derived from USEPA's Congressionally approved budget. Development of that budget began in 1999.

The September, 2000 Great Lakes Planning Meeting verified the importance of strategically focusing on toxics reduction and biodiversity. Participants also confirmed the importance of GLNPO addressing Invasive Species and Strategic or Emerging Issues. Congressionally directed funding in the USEPA budget makes that possible. In order to further work begun through the State of the Lakes Ecosystem Conferences to develop indicators necessary and sufficient to easily understood and objectively represent the condition of the Great Lakes ecosystem components, GLNPO has added a new funding category this year - Indicator Development. Information about each of these funding areas is contained in Part VI of this Request for Preproposals.

FY 2000 Recap. In FY 2000, GLNPO notified potential applicants that it was seeking Preproposals for a total of $3.04 million in the priority areas of: Contaminated Sediments; Habitat Protection and Restoration; Pollution Prevention; Assessment/Indicators; Invasive Species; and Emerging Issues. In response, 152 applicants submitted 264 Preproposals, requesting $31 million in assistance.

The "success rate" for Preproposals submitted in FY2000 was 14%. This rate was significantly lower than the success rate of 23% in FY1999, likely as a result of the decreased funding available through the Preproposal process. $400,000 of the GLNPO funds not allocated through GLNPO's general request for Preproposals in FY2000 was allocated in a separate competitive request for Preproposals. We do note that the success rate would be somewhat higher if it included Preproposals submitted to GLNPO and forwarded to other USEPA offices. Successful applicants were asked to submit full proposals for 38 projects totaling $2.9 million. GLNPO offered assistance for each of these projects for which the applicant requested funding.

III. APPLICATION INSTRUCTIONS, ELIGIBILITY, ETC.

Getting Started. We request that you Register with us now at <http://www.epa.gov/glnpo/fund/2001guid/register.html>, so that we can update you on our funding process, any changed deadlines, and work we are doing to allow applicants to apply on-line. There are 4 steps you must take to submit a Preproposal:

1. Get the free PSS2001 software (http://www.epa.gov/glnpo/fund/2001guid/pss2001/
2. Read and follow instructions.

3. Enter and edit your Preproposal submission.
4. Complete and submit your Preproposal.

Developing Preproposals. Preproposals should be developed using the GLNPO Preproposal Submission System (PSS2001) available from: http://www.epa.gov/glnpo/fund/pss2001.html. Please read the instructions for getting started and for using PSS2001. We encourage you to call Tony Kizlauskas (312-353-8773) or Pranas Pranckevicius (312-353-3437) for technical assistance or if you do not have access to a PC. PSS2001 does not work on Macintosh computers. A web application is being developed through which all applicants can submit Preproposal information online. Further information on that application will be posted on the GLNPO website.

Preproposal Format. PSS2001 generates the correct format. Examples of Preproposals for Sediments, Pollution Prevention and Reduction, and Habitat are available at http://www.epa.gov/grtlakes/fund/modelsubmis.html For your convenience, Appendix I gives "line-by line" instructions for the required Preproposal components, allowing you to compose your work off line, then copy and paste it into the program. PSS2001 limits your Preproposal to about five pages.

Eligibility. Assistance (through grants, cooperative agreements, and interagency agreements) is available pursuant to Clean Water Act §104(b)(3) for activities in the Great Lakes Basin and in support of the Great Lakes Water Quality Agreement. State pollution control agencies, interstate agencies, other public or nonprofit private agencies, institutions, and organizations are eligible; "for-profit" organizations are not.

Ineligible Activities. Under this solicitation, GLNPO will not fund: "construction grant" projects; basic research; land acquisition; education/outreach or conferences, unless they are a part of a larger project; or general operating support.

Additional Funds for Existing Projects. Applicants seeking more funding under existing awards should go through the Preproposal process.

Budget/Project Schedule Considerations. In developing a Preproposal, applicants should consider that they must provide a Non-Federal Match of at least 5% of the total project cost, which may be provided in cash or in-kind.. Applicants should also consider the Federal requirement that projects involving data collection require an *approved Quality Assurance Project Plan prior to commencing environmental data collection* - extra funds and extra time may be needed for its development.

Project Clarification/Revisions. Applicants may be contacted for clarification and for the purpose of negotiating changes in project terms and amounts.

Confidentiality. We expect that applicants will only submit non-confidential information, since external reviewers assist in evaluations and since information will be published on the Internet. 40 C.F.R. Part 2 discusses "public information," including procedures for claiming confidentiality (40 C.F.R. §§ 2.203 and

2.204). Note that under Public Law No. 105-277, data produced under an award is subject to the Freedom of Information Act.

Notification: We will confirm Preproposal receipt within: (i) one week for E-Mail submissions or (ii) two weeks for regular mail. Contact cabrera.evelyn@epa.gov if you do not receive a confirmation. Shortly after the Preproposal deadline, we will post Preproposal information (including Applicant, Title, and GLNPO identification number) at: http://www.epa.gov/glnpo/fund/glf.html. Applicants will be notified about submitting full proposals.

Deadline for Preproposal Receipt: February 16, 2001.

Preproposal Submission. We encourage paperless submissions. Attach a copy of the data file, "APL2001.TPS," from the C:\PSS2001 subdirectory and e-mail it to: preproposal@glnpo.net . If sending a disk, include the "APL2001.TPS" file, and mail it to:

USEPA - GLNPO (G-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590
Attention: Evelyn Cabrera

Multiple Preproposals. If your organization submits multiple Preproposals and chooses to rank them, please use PSS2001 to identify an overall contact (including phone, e-mail, and address) and send a single, coordinated submittal. Ranking information could, instead, be sent by e-mail to cabrera.evelyn@epa.gov . Individuals from the following organizations have offered to serve as their organizations' contacts.

- Indiana DEM: Kathy Luther (219-881-6730)
- Indiana DNR: Laurie Rounds (317-570-1554)
- Minnesota PCA: Pat Carey (218-723-4744)
- Minnesota DNR: Pat Collins (218-834-6612)
- Ohio EPA: Julie Letterhos (614-644-2871)
- Pennsylvania DEP: Kelly Burch (814-332-6816)
- Wisconsin DNR: Chuck Ledin (608-266-1956)
- Great Lakes Commission: Michael Donahue (734-665-9135)
- Argonne National Lab: Roger Anderson (630-252-6406)
- TNC: Heather Potter (312-759-8017)

IV. PROCESS AND SCHEDULE

A broad solicitation of Preproposals is being done through direct mailings, notification in the Federal Register, and Internet posting and announcements. GLNPO will screen Preproposals upon receipt to ensure they qualify under both the Specific and General criteria. Reviewers internal and external to USEPA will also use those criteria to evaluate the remaining Preproposals. Evaluations take into account an Applicant's ranking of its Preproposals and do not penalize Applicants for submitting multiple Preproposals. Evaluations will take

into account recommendations on specific needs and priorities of geographic areas within the Great Lakes, particularly those of Lakewide Management Plans for Lakes Ontario, Michigan, Erie, and Superior and their included geographic initiatives such as the Remedial Action Plans for Areas of Concern (see the identified priorities in Attachment 2 criteria). To obtain additional information about those needs and priorities, applicants are encouraged to consult with applicable USEPA staff in GLNPO and in Regions 2, 3, and 5. (See Appendix 3 for contact information.) Applicants will be notified as to whether they should subsequently submit full Assistance Application Packages (full Proposals). Final funding decisions will be based upon the full Proposals.

The schedule for the remainder of this FY 2001 funding cycle is:

Deadline for Submission of Preproposals	February 16
Preproposal Reviews (internal and external)	through May 9
Applicants Notified	by May 11
Full Proposals due	through July 15
Final Decisions/Awards	May-September 30

V. GENERAL CRITERIA.

Preproposals will be evaluated on the following General Criteria. Does the project Preproposal: (i) State a Rationale/Relevance/Bias for Action, (ii) Have Scientific/Professional Merit, (iii) Demonstrate Innovativeness, (iv) Demonstrate Performance Capability, (v) Involve Diverse Stakeholders, (vi) Have its Geographic Scope within the Great Lakes Basin, (vii) Disseminate Results effectively, (viii) Outline an Appropriate Budget, (ix) Leverage additional resources, and (x) More closely match the mission of Other Funding Sources. We especially welcome projects which address environmental justice and have community-based support. Applicants with existing GLNPO projects should be up-to-date on reporting and other requirements. Explanations of these terms are included below. Please see Part VI for the specific criteria applicable in each area.

Rationale/Relevance/Bias for Action: Funding will be directed to proposals showing the most potential, whether direct or indirect, to protect and/or restore the Great Lakes ecosystem. Successful proposals will explain how they address issues most relevant to Great Lakes policymakers in a value-adding way or result in practical activities which promise measurable progress to protect and/or restore the Great Lakes.

Scientific/Professional Merit: Soundness of approach is a key consideration, including design, objectives, and scientific viability of the project.

Innovativeness: We favor projects which do not duplicate prior efforts or which build upon prior efforts in value-adding ways.

Performance Capability: The experience and resources (including facilities, equipment, and instrumentation,

if applicable) of applicants should be shown to be appropriate to perform the work proposed. Applicants with existing EPA projects should be up-to-date on reporting and other requirements.

Stakeholders: Plans to work with appropriate partners and customers, for instance government agencies, community groups, businesses, or advisory groups for Lakewide Management and Remedial Action Plans, will be considered.

Geographic Scope: Projects which aim to serve environmental needs identified by Lakewide Management and Remedial Action Plans will be considered on this basis. Support from LaMP and/or RAP committees will be considered.

Disseminate Results: Plans to disseminate project results will be considered. Broad public dissemination is favored.

Appropriate Budget: Applicants must suggest a budget reasonably in keeping with the level of work proposed and with expected benefits.

Leveraging. We favor projects which leverage additional resources from other organizations.

Other Funding Sources: Projects for which funding could reasonably be expected from other sources will receive less consideration.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

VI. SPECIFIC CRITERIA

Preproposal evaluation and selection criteria include consideration of the General Criteria described in Part V and the applicable Specific Criteria described below. Special consideration is given to LaMP priorities for Contaminated Sediments, Pollution Prevention and Reduction, and Ecological Protection and Restoration.

A. Contaminated Sediments - $1,400,000*. GLNPO will provide funding, technical support, and vessel support to assist contaminated sediment work in priority geographic areas in the Great Lakes. GLNPO's emphasis and ultimate objective is to assist in bringing about remediation of contaminated sediments at these sites. GLNPO WILL NOT BE FUNDING BASIC RESEARCH FOCUSING ON THE DEVELOPMENT OF TECHNOLOGIES FOR TREATING CONTAMINATED SEDIMENTS.

We are particularly interested in the following projects:

< sediment assessments (chemical, physical, biological) to better map contamination at a site.
< sediment assessment in areas where subsistence fishing is high.
< data collection to better understand the relationship between contaminated sediments and fish residues.
< data collection to support the development of risk/hazard assessments.
< beneficial re-use of sediments, including associated human and ecological risk.
< assessment of Binational Toxics Strategy Priority Pollutants in Great Lakes sediments.
< assessment projects to determine benefits/impacts of remediation.
< on the ground sediment remediation.

Evaluations will also consider the specific needs and priorities of geographic areas within the Great Lakes, particularly those of Lakewide Management Plans and geographic initiatives such as the Remedial Action Plans for Areas of Concern. Projects dealing with the following topics will receive great consideration:

- *Lake Erie and the St. Clair/Lake St. Clair/Detroit River basin*. Projects addressing the chemicals associated with the beneficial use impairments as identified by the Lake Erie LaMP (PCBs, mercury, PAHs, lead, chlordane, dioxins, DDE/DDT, mirex), with priority given to projects involving PCBs and mercury.
- *Lake Ontario, St. Lawrence River, and Niagara River basins*. Projects which address the critical pollutants as identified in the 1998 Stage I Lake Ontario LaMP and/or the Niagara River Toxics Management Plan and projects that protect or restore habitats within these basins.
- *Lake Michigan basin.* Projects for (i) the possible beneficial reuse of contaminated sediments and (ii) tools and models for public education and involvement in sediment cleanups.
- *Lake Superior basin.* Projects addressing either of the St. Louis River or St. Mary's River Areas Of

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Concern (AOCs) and their directives to remove impairments of beneficial uses.

Project Selection Criteria. GLNPO's Preproposal evaluation will seek a balance among sediments activities; however, Preproposals will be prioritized in the following order: (i) on-the-ground cleanup, (ii) field work and assessment, and (iii) remedial design. All Preproposals submitted under this Section A will be evaluated under the General Criteria specified in Part IV and the following Specific Criteria:

- Availability and assessment of baseline conditions for remediation proposals.
- Likelihood that remedial measures, including enforcement, will result.
- Public outreach component of activity.

Contact: Marc Tuchman (312-353-1369/ tuchman.marc@epa.gov)

B. Pollution Prevention (Binational Toxics Strategy) - $500,000*. GLNPO will provide assistance for pollution prevention, reduction or elimination projects, with an emphasis on substances which are persistent and toxic, especially those which bioaccumulate, in the Great Lakes basin.

Priority will be given to those projects that support the goals of the US-Canada Great Lakes Binational Toxics Strategy (see http://www.epa.gov/glnpo/bns/strategy.html). The Strategy establishes reduction challenges for twelve "Level I" persistent toxic substances: alkyl-lead, benzo(a)pyrene [B(a)P], hexachlorobenzene (HCB), dioxins and furans, mercury, octachlorostyrene (OCS), polychlorinated biphenyls (PCBs), and five canceled pesticides (aldrin/dieldrin, chlordane, DDT, mirex, and toxaphene). The US has also identified "Level II" substances for pollution prevention activities: 1,2,3,4-tetrachlorobenzene; 1,2,4,5-tetrachlorobenzene; pentachlorobenzene; hexachlorobutadiene; and hexachlorocyclohexanes.

We are particularly interested in the following projects:

< Foster adoption of green technologies. In this context, green technology involves reducing or eliminating the use or generation of persistent bioaccumulative toxic substances - including feedstocks, reagents, solvents, products and byproducts-during design, manufacture and use of chemical products and processes. (The aim of this project is not technology development. We seek projects which advance a developed technology within society, including identification of public policies which would speed the spread of environmentally kind technologies.)
< Source characterization: Assessment of potential sources of persistent bioaccumulative toxic substances.
< Indicators of progress toward virtual elimination of persistent bioaccumulative toxic substances.
< Proper disposal of persistent bioaccumulative toxic substances.
< Foster adoption of innovative products that would reduce the use and release of persistent bioaccumulative toxic substances and that are consistent with the principles of EPA's *Environmentally-Preferable Purchasing Program* (see http://www.epa.gov/opptintr/epp) .

Project Selection Criteria. All Preproposals submitted under this Section B will be evaluated under the General Criteria specified in Part IV and the following Specific Criteria for Pollution Prevention and Reduction projects. GLNPO will favor Preproposals for projects which:

- Are listed above.
- Include an evaluation of the potential reductions of pollutants in the environment
- Jointly target common goals under the Great Lakes Binational Toxics Strategy and the LaMPs.

In this solicitation, special consideration is being given to projects in support of the Lakewide Management Plans published in Spring 2000. For that purpose, GLNPO has established a target of about $40,000 per Lake, potentially available to fund projects which will support the pollution prevention/reduction goals of the

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LaMPs. Because only meritorious, technically qualified projects will be selected, there is no guarantee that the target amount will be realized for each Lake. Lake-specific Preproposals not selected as described in this paragraph will be considered along with the pool of other Preproposals. The Pollution Prevention and Reduction priorities for each Lake are:

- *Lake Erie and St.Clair/Lake St. Clair/Detroit River basins.* Projects addressing the chemicals associated with the beneficial use impairments as identified by the Lake Erie LaMP (PCBs, mercury, PAHs, lead, chlordane, dioxins, DDE/DDT, mirex) with priority given to projects involving PCBs and mercury or which reduce the release of atrazine to the waters of Lake Erie.
- *Lake Ontario, St. Lawrence River and Niagara River basins.* Preproposals are requested for projects which:
  (i) address pollutants identified in the 1998 Stage I Lake Ontario LaMP (PCBs, DDTs, mercury, mirex, dieldrin, dioxins), and emerging toxics such as PBDE as well as projects along the Niagara River which address the priority toxics identified in the Niagara River Toxics Management Plan.
  (ii) reduce mercury or other pollutants by building upon, or initiating projects similar in concept to auto mercury switch/ thermometer replacement; mercury collections from medical situations; electronic equipment and pesticide collections and education; demonstrate innovative technologies for control of pollutant loadings from the watershed..
- *Lake Michigan Basin.* The Lake Michigan Team is seeking Preproposals for projects which:
  (i) address dioxin and other pollutants formed from "burning trash in barrels."
  (ii) continue agricultural clean sweep efforts.
- *Lake Superior Basin.* The Lake Superior Team is seeking Preproposals for projects which:
  (i) address the chemicals identified as critical pollutants; PCBs, dioxins, DDT and metabolites, toxaphene, chlordane, hexachlorobenzene and octachlorostyrene. Priority will be given to projects involving PCBs and dioxins (with speci
  (ii) place special emphasis on mercury reduction through the two major sources of environmental release in the Lake utility sector) and mining and ore processing, in order to meet the chemical load reduction schedules set in the Lake
- *Lake Huron basin.* The Lake Huron Initiative has identified priority pollutants which should receive special attention for pollution prevention and reduction efforts, including PCBs, Chlordane, Dioxin, Mercury.

Contacts: Rita Cestaric (312-886-6815/ Cestaric.Rita@epa.gov)/Danielle Green (312-886-7594/ Green.Danielle@epa.gov)

Further information: Please see http://www.epa.gov/glnpo/p2.html

C. Ecological (Habitat) Protection and Restoration - $450,000*. GLNPO will fund projects that demonstrate new and innovative practices and tools for protecting and restoring aquatic, terrestrial, and wetland ecosystems. When developing Preproposals, Applicants should consider concepts from the State of the Lakes Ecosystem Conferences (SOLEC) and from previously funded GLNPO projects. SOLEC and final grant report documents are at http://www.epa.gov/glnpo. Applicants should note that:

- Acquisition projects will not be considered.
- Basinwide projects, projects having large-scale implications for the Great Lakes ecosystem, are encouraged. Preproposals must indicate specific project outcomes as well as identify workplan contents.
- Regional projects must be consistent with Lakewide Management Plan priorities as described below, with Tribal priorities, or with Biodiversity Investment Area development as described in the SOLEC 2000, Shoreline Biodiversity Investment Area Integration paper (see the GLNPO web site).
- Local or site-specific projects must demonstrate innovative measures to protect or restore, and define expected outcomes.

Project Selection Criteria. All Preproposals submitted under this Section C will be evaluated under the General Criteria specified in Part IV and the following Specific Criteria for ecological (habitat) protection and restoration projects. GLNPO is requesting Preproposals for projects which will:

- Have biological importance on a regional or global scale.
- Test new techniques or approaches to protection or restoration.
- Identify and report on demonstrated environmental results.
- Incorporate an education or outreach component.
- Create new partnerships.
- Impact a significant number of acres of aquatic, wetland, riverine, and terrestrial habitat.

In this solicitation, special consideration is being given to projects in support of the Lakewide Management Plans published in Spring 2000. For that purpose, GLNPO has established a target of about $50,000 per Lake, potentially available to fund projects which will support the habitat goals of the LaMPs. Because only meritorious, technically qualified projects will be selected, there is no guarantee that the target amount will be realized for each Lake. Lake-specific Preproposals not selected as described in this paragraph will be considered along with the pool of other Preproposals. The Habitat priorities for each Lake are identified in the requests below:

- *Lake Erie and St.Clair/Lake St. Clair/Detroit River basins.* Preproposals for projects which:
  1. Gather information leading to the development of ecosystem indicators and measures for appropriate wildlife species and habitat (particularly coastal wetlands). Projects should consider both LaMP and SOLEC indicator work.
  2. Monitor projects listed in the Lake Erie LaMP, following up on completed work for the purpose of

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measuring results.

- *Lake Ontario, St. Lawrence River and Niagara River basins.* Preproposals for projects which:
  1. Assist the Four Parties to address the loss of fish and wildlife habitat use impairment identified in the 1998 Stage I LakeOntario LaMP such as:
     - The implementation of new habitat protection or restoration projects;
     - An assessment and mapping of aquatic and/or wildlife habitat in the Lake Ontario basin; mapping of mink populations in the Lake Ontario basin as either a U.S. or a binational (US/Canadian) project;
     - Gathering information leading to development of ecosystem indicators and measures for appropriate wildlife species (such as osprey, benthos) and habitat (nearshore or coastal wetlands or other). Projects should consider both LaMP and SOLEC indicator work.
  2. In the Niagara River and St. Lawrence River drainage basin, address the loss of fish and wildlife habitat, including an assessment of habitat and on the ground projects to restore/protect/enhance habitat.
- *Lake Michigan Basin.* The Lake Michigan Team is seeking Preproposals for projects which:
  1. Demonstrate, in the coastal area of the Lake or major tributaries, brownfield to habitat restoration, development of local restoration priorities and plans that utilize and/or add to the Lake Michigan Habitat on-line GIS Atlas; and in urban areas, utilize the Chicago Wilderness biodiversity plan model.
  2. Protect and/or restore wetlands and other nearshore features important to the health and spawning of Lake Michigan aquatic species.
- *Lake Superior Basin.* The Lake Superior Team is seeking Preproposals for projects which:
  1. Restore stream/tributary habitat so as to produce a stable tributary environment. Restore both the land and water interface, and have a connection to an ongoing monitoring and evaluation project. Promote the achievement of Great Lakes Fisheries Commission fish community objectives.
  2. Map the important aquatic habitats of Lake Superior.
  3. Demonstrate landscape scale, intergovernmental, planning and coordination efforts, for example, a management plan for habitat restoration across ownership boundaries.
  4. Establish representative baseline areas of the ecosystems around the Basin.
  5. Manage the pine barrens ecological community for sharptail grouse and other declining wildlife species.
- *Lake Huron Basin.* Preproposals are requested for projects which:
  1. Support the goals and objectives outlined by the International Alvar Initiative.
  2. Demonstrate the connection between coastal marshes and the fishery.
  3. Investigate the impacts of dams and identifies potential efforts to restore natural flows and increase tributary fish spawning habitat.
  4. Enhance the ongoing binational GIS development to include openwater, nearshore, and terrestrial habitats.
  5. Develop and implement comprehensive nutrient management plans that address critical pollutants identified in the Lake Huron Initiative Action Plan, including but not limited to phosphorus, soil erosion and pathogens.

Contact: Karen Rodriguez (312-353-2690/ rodriguez.karen@epa.gov)

See Appendix IV for a description of other GLNPO Habitat-related funding opportunities, including the Coastal Wetlands Consortium and conference support.

D. Invasive Species - $300,000*. GLNPO will provide assistance to address invasive (non-indigenous) aquatic and terrestrial species in the Great Lakes Basin with an emphasis on prevention. This priority is proposed to be funded using Congressionally directed funding.

We are particularly interested in the following projects, with the highest priority given to the first three topic areas:

1. Development and demonstration of strong and innovative programs (education and outreach, new technology, or biological) to prevent the introduction of new nuisance invasive species (aquatic or terrestrial) into the Great Lakes Basin.
2. Development and demonstration of strong and innovative programs to control the spread of invasive species within and from the Great Lakes Basin.
3. Projects that allow for the prediction of new invaders into the Great Lakes Basin and the development of contingency plans to address these potential invaders.
4. Documenting ecological impacts of invasive species on the Great Lakes Basin food web.
5. Documenting the economic impacts or potential economic impacts of invasive species already in the Great Lakes Basin.
6. Projects which identify chemical, physical, and biological conditions that promote the establishment of invasive species.

Project Selection Criteria. GLNPO's Preproposal evaluation will consider priorities associated with invasive species for geographic areas within the Great Lakes, particularly those of Lakewide Management Plans; however, as funding for this category is limited, emphasis will be placed on projects of Great Lakes Basin-wide applicability. All Preproposals submitted under this Section D will be evaluated under the General Criteria specified in Part IV as well as the following Specific Criteria:

- Potential for project to benefit the Great Lakes ecosystem.
- Transferability across the Great Lakes Basin and beyond.
- Potential to advance government and private partnerships and community involvement.

Contact: Marc Tuchman (312-353-1369/ tuchman.marc@epa.gov)

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E. Indicator Development - $300,000*. In order to better fulfill its mission under the Great Lakes Water Quality Agreement for the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes Basin Ecosystem, GLNPO is seeking directed projects which further develop, define, test or otherwise implement the indicators selected for reporting at the biennial State of the Lakes Ecosystem Conferences (SOLEC). These indicators are intended to be easily understood and objectively represent the condition of the Great Lakes ecosystem components. The information generated is targeted toward making better management decisions concerning the restoration and maintenance of Great Lakes ecosystem health. The complete descriptions for the indicators can be found on the web at: <http://www.on.ec.gc.ca/solec/indicators2000-e.html>.

Eighty indicators are currently on the list. At SOLEC 2000, information was presented on 31 of the 43 indicators. Funded projects are in place for the development and testing of 5 indicators. The remaining 32 indicators require further refinement of the indicator itself, identification and testing of methodology, data collection, establishment of monitoring programs, or other efforts to bring the information forward for reporting at SOLEC. The underdeveloped indicators are associated with all of the SOLEC indicator categories except coastal wetlands, which is being addressed through a Coastal Wetlands Consortium cooperative agreement. Preproposals are now being requested for development of the following SOLEC underdeveloped indicators (as each is fully described at the above URL):

- Nearshore and offshore waters (#6, #120, #8142)
- Nearshore terrestrial (#8132, #8134, #8136, #8137, #8139, #8141, #8149)
- Land use (#7053)
- Societal (#3509, #3510, #3511, #3512, #3513, #7042, #8140)
- Human health (#113, #4088, #4177, #4178, #4179)
- Unbounded (#4519, #4857, #4858, #8150)

While priority will be given to the selection of Preproposals for the underdeveloped indicators, GLNPO will also consider Preproposals for enhancements to the existing 43 SOLEC indicators. Any such Preproposal should assist with full scale implementation of the indicator, perhaps adding to the time period covered by the indicator or expanding its geographic scope.

The purpose of projects funded in this category is to demonstrate the utility of selected indicators across the Great Lakes basin. Applicants seeking funding for indicator development research should pursue funding from USEPA's Office of Research and Development. Additional information is available at < http://es.epa.gov/ncerqa/rfa >.

Project Selection Criteria. GLNPO expects to award approximately 2/3 of the targeted amount in this

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category for projects supporting habitat indicators. The targeted amount will not be used to fund routine or long term monitoring activities. All Preproposals submitted under this Section E will be evaluated under the General Criteria specified in Part IV. In addition, evaluations will consider the following Specific Criteria:

- How well does the project support the SOLEC indicators identified above?
- Strategic importance of the indicator in making management decisions concerning the restoration and maintenance of Great Lakes ecosystem health.
- Degree to which the indicator(s) will be refined and implemented on a basin-wide scale.
- Identification of the environmental measurements to be made: where, how often, by what methodologies?
- Suitability of proposed indicator features and illustrations.
- Feasibility of collecting and analyzing required data, whether obtained from existing sources or by new monitoring efforts.
- Assessment of the applicability of the indicator to the ecosystem component it is supposed to reflect.
- Potential for establishing cost-efficient, standard protocols for continuing or future monitoring efforts.
- Potential to obtain commitments for long term monitoring based on the established protocols. (The Preproposal should identify who would do the necessary monitoring - GLNPO is not likely to do so.)

Contact: Paul Bertram (312-353-0153/ bertram.paul@epa.gov)

F. Strategic or Emerging Issues - $200,000*. In order to better fulfill its mission under the Great Lakes Water Quality Agreement for the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes Basin Ecosystem, GLNPO is seeking innovative Great Lakes environmental projects which deal with strategic or emerging issues of basin-wide importance. This priority is proposed to be funded as a result of Congressionally directed funding.

We expect that projects in this area would:
- not fit neatly under other existing GLNPO funding categories (i.e. Contaminated Sediments, Pollution Prevention, Ecological Protections and Restoration, Invasive Species, and Indicator Development) but might contain elements of one or more of those categories;
- address assessment, causes and/or effects of chemical or biological pollutants not in the regulatory "mainstream;"
- cut across or overlap two or more of the foregoing areas; or
- address some other unanticipated area.

We especially encourage projects which identify and propose solutions/mitigation for strategic or emerging issues of Great Lakes Basin-wide applicability, particularly if they are being identified through the Lakewide Management Plans and geographic initiatives (such as the Remedial Action Plans for Areas of Concern). Areas of particular interest include:
< investigating chemicals of potential environmental concern such as polybrominated flame retardants, pharmaceuticals, and endocrine disruptors.
< human health.
< economic issues.
< environmental impacts of lower lake levels.

Project Selection Criteria. As funding for this category is limited, emphasis will be placed on projects of Great Lakes Basin-wide applicability. Evaluations will to some extent depend on the type of projects submitted; however, all Preproposals submitted under this Section F will be evaluated under the General Criteria specified in Part IV as well as the following Specific Criteria:
- Potential to further the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes Basin Ecosystem.
- Transferability across the Great Lakes Basin and beyond.
- Strategic importance.

Contacts: Paul Horvatin (312-353-3612/ horvatin.paul@epa.gov)/Michael Russ (312-886-4013/ russ.michael@epa.gov)

**Planning Target - subject to change for various reasons, including receipt of meritorious, technically qualified Preproposals and Congressional and Agency action such as development and approval of annual operating plans.*

Appendix 1

"Line-by-Line" Instructions for PSS2001 Data Entry

(Tabs refer to data entry in the Preproposal Submission System)

APPLICANT INFORMATION (TAB1)

Applicant. Enter Applicant (Organization) Name, Contact Person's Title (choose one from the drop-down list), Contact Person's Name, Address, City, State (choose one from the drop-down list), Phone, Fax, and E-mail. For Phone and Fax numbers, enter the 10-digit number without any punctuation, spaces, etc.
Type of Organization. Choose one from a drop-down list including: State; Interstate Agency or Commission; Sub-state or special purpose district; County; Municipality; Federal Agency; College or University; Tribal Organization; Federally funded research and development center; or Other.

PROJECT SUMMARY INFORMATION (TAB 2)

Project Title. No more than 60 characters.
Abstract. One paragraph synopsis which can stand alone as a project description.
Duration. Specify project duration from 0.5 years up to 2 years (select from the spin-box list).
Category. Choose only 1 from a drop-down list including: (i) Contaminated Sediments; (ii) Pollution Prevention and Reduction (GLBTS); (iii) Ecological (Habitat) Protection and Restoration; (iv) Invasive Species; (vi) Indicator Development; or (vi) Strategic or Emerging Issues. *Submission of a single project to multiple categories may adversely affect your chance of success.*
Rank Within Category. Only for multiple Preproposals being submitted within the same project category from the same organization. To only be filled in after rank is assigned by the organization's coordinator.

GEOGRAPHIC APPLICABILITY (TAB 3)

Applicable State. Select Great Lakes State(s) which would be most impacted by this project. (Click on appropriate boxes).
Applicable Lake Basin. Identify Lake Basin(s) which would be most impacted by this project. (Click on appropriate boxes.)
Applicable Geographic Initiative. If applicable, identify geographic initiative which would be most impacted by this project. (Click on box for Greater Chicago, Northeast Ohio, NW Indiana, Southeast Michigan, or Lake St. Clair.)
Applicable Areas of Concern. Identify the Areas of Concern affected by the Project: Choose the primary affected Area of Concern from the drop-down list. List any others in the field entitled "Other Affected AOCs".

PROBLEM STATEMENT (TAB 4)

Problem Statement. Describe the issue that will be addressed and its relevance to the Great Lakes, particularly to needs and priorities (especially in LaMPs and RAPs) for Lakes, AOCs, and other geographic initiatives.

Proposed Work/Outcome. Outline what will be done and how. Describe anticipated environmental results, referencing affected pollutants, industry sectors, economic impacts, habitats, and/or species. Habitat projects should include a statement of the number of acres of aquatic, wetland, riverine, and terrestrial Great Lakes habitat to be positively impacted.

PROJECT MILESTONES (TAB 5)

Milestones. Specify milestones and/or final products and projected due dates (Month/Year, in MM/YYYY format). You may describe up to 8 milestones/final products, including Project Start and End. Please be aware that if you submit a full proposal in May, your project could begin in June; however, most usually begin in September or October.

EJ/EDUCATION APPLICABILITY (TAB 6)

Environmental Justice. Check box and include a narrative description if some part of the project addresses "Environmental Justice."
Education/Outreach Component. Check box, if the project includes an education/outreach component. If applicable, describe the target audience and how that group would be impacted by the project in the field entitled "Education/Outreach Description".

PROJECT BUDGET (TAB 7)

Budget. Fill in the applicable budget items in the table to show how GLNPO (Federal) funds and non-Federal matching funds will be used for personnel/salaries, fringe benefits, travel, equipment, supplies, contract costs, construction, and other costs. You may include a separate line for indirect costs if your organization has in place (or will negotiate) an "indirect cost rate" from a cognizant Federal agency. Budget should represent the total which would be requested from GLNPO for the project's duration (up to two years). Funding will be awarded as a "lump sum" and is not assured for subsequent years. Do not include commas when entering the budget amounts. Totals will be calculated automatically or by pressing "calculate."

OTHER SOURCES OF FUNDING (TAB 8)

Other Funding. If funds are being pursued or have been committed to your Project by other providers, list the Name of the Providers, Amounts Provided, and Commitments made by each.

COLLABORATION (TAB 9)

Collaboration/Community-based Support. Describe plans and status of collaboration amongst the public, private, and independent sectors. Evidence of support will be required for full proposals.

Appendix II

PURPOSE AND GENERAL PRIORITIES

Purpose. This document is a resource to assist the network of State, Tribal, Federal, and non-governmental organizations which together constitute the Great Lakes program. It identifies joint environmental priorities of the governmental partners of the Great Lakes Program. The Great Lakes Program brings together Federal, state, tribal, local, and non-governmental partners in an integrated, ecosystem approach to protect, maintain, and restore the chemical, biological, and physical integrity of the Great Lakes. The Boundary Waters Treaty of 1909 and the Great Lakes Water Quality Agreement (GLWQA) with Canada provide the basis for our international efforts to manage this shared resource. Additional responsibilities are defined in Section 118 of the Clean Water Act, Section 112 of the Clean Air Act Amendments, and the Great Lakes Critical Programs Act of 1990.

By publishing these Great Lakes Priorities each year, GLNPO seeks to:

- implement that mission by fostering development of appropriate projects.
- achieve the objectives of the 1992 Great Lakes 5-Year Strategy.
- maximize the opportunity for developing joint partnerships between agencies and non-governmental organizations to achieve common environmental objectives.
- provide program and funding guidance such that State and Tribal agencies are able to efficiently prepare grant proposals in concert with other program planning activities.
- identify joint priorities so that Great Lakes Program partners can use them in internal planning and so that grant proposals can be targeted at opportunities for the most significant environmental improvement.
- reduce the administrative burden associated with competing for individual project grants at various, unpredictable times throughout the funding cycle.

The Great Lakes Priorities do not replace general USEPA National guidance or guidance developed by the Regional Program Offices. Rather, it is a supplement to annual planning processes and should be used to facilitate planning Great Lakes activities ***in concert with*** other program planning efforts. This document is also intended to provide linkages among USEPA and other Federal Great Lakes programs.

GENERAL GREAT LAKES PRIORITIES

The Great Lakes Basin is home to 33 million people, including more than one-tenth of the population of the United States. It contains some of the world's largest concentrations of industrial capacity; agricultural land; forests; dunes; wetlands; and 141 globally rare plant and animal species. The Lakes themselves constitute the largest system of fresh, surface water on earth, containing 20% of the world's supply. They are sensitive to a range of pollutant sources, including runoff, waste, industry discharges, and disposal leachate. Their size increases their vulnerability to atmospheric deposition. Pollutants bioaccumulate and are retained in the system for decades - outflows are less than 1 % annually and water retention ranges from 2.6 years in Lake Erie to 191 years in Lake Superior.

Great Lakes Program partners are united in their efforts, as set forth in the U.S./Canada Water Quality Agreement, to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem. This mission is supported through:

- Reducing toxic substances, with an emphasis on persistent, bioaccumulative substances.
- Protecting and restoring vital habitats.
- Protecting biological integrity; restoring and maintaining diverse living populations.

To achieve those objectives, a nested structure of Great Lakes activities is managed and implemented by an alliance of Federal, State, Tribal, and non-governmental agencies. This structure fosters cross-program and cross-agency integration of programs at a variety of scales; from Areas of Concern to issues of lakewide and those of basinwide concern. Thus, the Great Lakes priorities include a variety of tools and focuses, including:

A. Toxics Reduction

< **Great Lakes Water Quality Guidance.** Since the 1995 publication of the landmark Great Lakes Water Quality Guidance, for the first time requiring water quality standards to be developed on an ecosystem basis, EPA has completed reviews of six state programs tailored to protect Great Lakes water quality, finding Minnesota and Pennsylvania to be fully consistent with federal water standards and the Guidance. *Priority Activity: Implementation.*

< **Binational Toxics Strategy**. The Strategy, a ground breaking international toxics reduction effort, targets a common set of persistent, toxic substances for reduction and virtual elimination from the Great Lakes. It focuses on pollution prevention efforts, using voluntary and regulatory tools to achieve reductions, and contains reduction challenges for a targeted set of substances, e.g., mercury, PCBs, dioxins/furans, and certain canceled pesticides. In FY2000, EPA published reports detailing actions which could reduce emissions of Dioxin, PCB, Mercury, HCB/B(a)P, and OCS. EPA continued its public-private partnership with the Chlorine Institute and its member companies which are the leading consumer of mercury in the U.S. economy. During the first three years of the Chlorine Institute's voluntary mercury initiative, this industrial sector reduced consumption of mercury by 42% (on a production adjusted basis). In FY2000, EPA also partnered with one firm on a voluntary mercury air emissions study. *Priority Activities: Each targeted substance will be addressed at the appropriate phase of an analytical framework which consists of information gathering, analysis of current regulations/ initiatives, identification of options, and implementing reduction actions.*

< **Air Toxics.** Atmospheric deposition is one of the two most significant pathways of toxic pollutants into the Great Lakes. EPA Regional work continues with the States, the Office of Air and Radiation, the Office of Research and Development, GLNPO, the Office of Water, and others on a dual track approach to address the air pathway.

The first track seeks emission reductions through voluntary programs, such as the Binational Toxics Strategy, and regulatory programs, such as development of technology-based emission standards for air toxics (i.e. MACT standards). *Associated priorities include delegating of authority of Clean Air Act Title III activities to the Region 5 States, allowing the States to implement and enforce the MACT standards; increasing compliance activity on a selection MACT standards; and working with the States and OAR to develop and implement risk-based initiatives including the Urban Air Toxics Strategy and the residual risk program.*

Work also continues along a second track to develop multi-media strategies and studies under the Great Waters atmospheric deposition program, in order to ensure continued progress in reducing sources and loadings of atmospheric deposition to the Great Waters, and to further reduce the environmental and public health effects. These studies rely on a balanced effort of emissions inventory development and ambient monitoring, which provides input and verification data for multi-media modeling of transport and deposition. Such information can be used to assess the need for further emission reductions. The Lake Michigan Mass Balance Study and the Mercury Total Maximum Daily Load Air Deposition Pilot Projects are examples of ongoing multi-media initiatives addressing air toxics. Much of the activities concern the atmospheric deposition of mercury to lakes and land, a national priority and a global concern. *Associated priorities include:*

* ***Inventory and Monitor.*** *Assist States in (i) developing the Great Lakes Regional Air Toxics Emissions Inventory to identify and characterize the air emissions of 188 hazardous air pollutants from point, area and mobile sources, and (ii) building their capacity to monitor persistent air toxics for purposes of establishing ambient trends, calibrating atmospheric deposition models, and assessing and characterizing air emissions from sources.*
* ***Toxics Modeling.*** *Continue research on toxic pollutant modeling in order to better understand the fate and cycling of toxic pollutants through the Great Lakes ecosystem and enhance modeling capabilities throughout the Great Lakes Basin. In particular, link models from different media, including air, water, sediments, and biota, to simplify and enhance the prediction of relative loadings from air and water to waterbodies and subsequent effects on human and ecosystem health.*
* ***Long Range Transport.*** *Assess and identify long-range transport of substances from sources outside of the Great Lakes, including contributions from regional, continental, and global sources per the Great Waters Report.*
* ***Control Technologies.*** *Further investigate the development of cost-effective control technologies for mercury as well as other pollutants (both end-of-pipe controls and pollution prevention options).*

< **Contaminated Sediments.** Efforts continued in FY 2000 to address contaminated sediments, a major source of fish and wildlife contamination in the Great Lakes, contributing to impairments to over 2,000 miles (20 percent) of shoreline and to the fish consumption advisories in place throughout the Great Lakes. On the U.S. side of the border, sediments have been assessed at 36 Great Lakes locations. Some 2,500,000 cubic yards of contaminated sediment have been remediated through enforcement and/or cooperative or partnership approaches during the past four years. Records of decision were entered and remediation efforts initiated and/or completed in FY2000 that address significant portions of the AOCs, particularly at: Ashtabula Harbor (OH); Saginaw River, Manistique, Kalamazoo River, and Pine River (MI); and Sheboygan (WI). (See http://www.epa.gov/glnpo/sediments.html for more.) Contaminated sediments must be cleaned up - before these sediments move downstream or into open waters, which makes them inaccessible and cleanup impossible. *Associated priorities include: (i) provide communities with technical assistance, especially in Areas of Concern, to clean up contaminated sediments in their rivers and harbors through application of regulatory authorities and cooperative approaches including on-the-ground cleanup, remedial design, and field work and assessment; (ii) prioritize Regional sediment sites and develop a Regional Sediments database; and (iii) improve the process for managing dredged materials from navigable waterways.*

B. Ecological (Habitat) Protection and Restoration. Much of the Great Lakes basin ecosystem has been permanently altered by anthropogenic stressors, but viable remnants of most of the biological components remain. Habitat priorities are focused on efforts to:

< *Protect ecosystems possessing ecological importance, ecological integrity, bio-diversity, or rare ecological occurrences from adverse impacts of anthropogenic stressors.*
< *Restore physical processes, ecological structures, and functions to formerly degraded ecosystems that have the potential to be ecologically significant.*

C. Ecosystem tools and approaches, addressing both toxics and habit:

< **Lakewide Management Plans (LaMPs).** USEPA and its partners are working to restore and protect the biological, chemical, and physical integrity of the Great Lakes. "LaMP 2000" documents, available from http://www.epa.gov/glnpo/gl2000/lamps/index.html , identify priorities being addressed through lake management teams for each of the Lakes including:

* **Lake Michigan.** Lake Michigan is the second largest Great Lake by volume and the only one entirely within the United States. The basin contains the Nation's third largest population center, the world's largest

concentration of pulp and paper mills, and 40 percent of the Nation's steel making capacity. Fruit and grain production, as well as water-based recreation, are also important to the area's economy. The lake provides safe drinking water for 10 million people and fish for food, sport and culture. Its basin extends from the colder, forested north woods to the more temperate southern dune and swale system and contains significant natural features and rare habitat, including 40 percent of the coastal wetlands of the entire Great Lakes system. The Lake Michigan LaMP found the ecosystem an outstanding natural resource of global significance, yet under stress and in need of special attention. The lake has 10 AOCs and the LaMP documents 14 beneficial use impairments on the local, regional and/or lakewide levels. Although many efforts have been undertaken to remediate the damage, particularly in the area of chemical pollution at legacy sites, human impacts continue to impair the ecosystem. Toxic air deposition and nonpoint source pollution are significant problems, Fish advisories remain in effect. In some areas drinking water sources are vulnerable to contamination and beaches are closed periodically due to high bacteria counts. Unique habitats are fragmented by poor land-use practices, including uncontrolled development. Contaminated sediments threaten nearshore waters and wildlife. Many aquatic nuisance species have entered and spread within the ecosystem causing irreversible damage and demanding immediate attention. *Priority Activities: Chapter 6 and Addendum 6-A of the Lake Michigan LaMP 2000 contains The Goals and Objectives, Strategic Agendas and Lake Michigan Action Examples for 2000-2002 that reflect details and examples of actions to implement the 15 recommendations listed in the Lake Michigan LaMP 2000 Executive Summary.*

* **Lake Ontario.** There have been significant improvements since the 1960s and 1970s, when colonial waterbirds experienced nearly total reproductive failures due to high levels of toxic contaminants in the food chain. Following actions to ban and control contaminants entering the Great Lakes and GLWQA renewal, levels of toxic contaminants have decreased significantly, and colonial waterbird populations have overcome most of the recognized contaminant-induced impacts of 25 years ago (i.e., their eggshells show normal thickness, they are reproducing normally, and most population levels are stable or increasing). However, bioaccumulative toxics persist in sediment, water, and biota at levels of concern for some fish species and for higher order predators. The Stage I (problem definition) LaMP was finalized in May, 1998 and a draft LaMP document was published in April 2000. *Priority Activities: The LaMP workgroup will continue work with its partners to implement the binational workplan laid out in the LaMP, including adoption of ecosystem indicators. through work such as presenting 11 indicators from SOLEC 2000 to the public. Top priority will be given to activities that lead to the (i) identification of inputs of LaMP critical pollutants (PCBs, DDTs, mirex, mercury, dieldrin, and dioxins) from air deposition, tributaries, point sources, and watersheds; (ii) protection and restoration of significant nearshore, tributary, wetland, or coastal habitats in the Lake Ontario Basin; (iii) reduce critical pollutant inputs through TMDLs based on the mass balance model; (iv) further refinements to the mass balance model for PCBs such as the effects of air deposition; (v) development of models for other pollutants (vi) impairment, restoration, and ecosystem indicator linkages/relationships between Lake Ontario and its Areas of Concern (vii) determination of delisting for 4 beneficial use impairments of Lake Ontario cited in 1998 Stage I document. Other priorities include reducing fish advisories and delisting AOCs.*

* **Lake Superior.** The largest fresh-water lake in the world by surface area, the lake basin is sparsely populated and relatively pristine. Through the Binational Program's Zero Discharge Demonstration Program, the Lake Superior community will work with local industry and communities to reduce and eventually eliminate all discharges of targeted toxic substances to the Superior Basin. *Priority Activities: Implementation of chemical reduction and ecosystem restoration actions and activities in the April Lake Superior "LaMP 2000" document. The chemical portion of the LaMP targets critical pollutants for eventual elimination in accordance with the tenets of the Zero Discharge Program. The LaMP 2000 document contains matrices of implementation actions for chemical reduction and ecosystem restoration. The ecosystem components include actions on habitat, terrestrial/wildlife, sustainability,*

aquatics and human health. Some examples of projects include development of integrated, basin-wide monitoring protocols, targeted reduction of burn barrels (dioxins), community/school/medical sector reduction of mercury, and protection and restoration of critical habitat.

* **Lake Erie.** The smallest, warmest, shallowest, and most biologically productive Great lake supports major industrial, recreational, and fishing uses. Stresses from urbanization, agricultural use, and invasive species impact habitat and threaten food sources. *Priority Activities: (i) Critical Pollutants: Complete action plans for further reductions in PCBs and mercury levels and support action plan implementation, including pollution prevention efforts, sediment remediation, enforcement-compliance assistance, and support for RAP activities addressing PCBs and mercury. (ii) Habitat Protection/ Restoration: Complete action plans and support their implementation, including support for RAP activities addressing habitat. (iii) Problem Definition: Complete the development of ecosystem objectives and indicators, finalize beneficial use impairment assessments, and complete pollutant sources and loads analysis, in order to further develop and implement action plans to protect/restore the beneficial uses of Lake Erie. Further develop analysis of: human health impacts from Lake Erie (beach closings/fish advisories), long-range transport of pollutants, invasive species, use/impact of pesticides, nitrates trends/impacts, impacts of climate change, and impacts of water level changes. (iv) Public Involvement: Continue to support an active Public Forum, as well as other public involvement/outreach activities in the Lake Erie basin.*
* **Lake Huron.** The third largest Lake by volume has the largest lakeshore (extending 3,827 miles), and is characterized by shallow, sandy beaches and the rocky shores of Georgian Bay. Lake Huron's drainage area, which covers parts of Michigan and Ontario, is relatively large compared to the other Great Lakes. Because of the lesser degree of development in the watershed, environmental issues in Lake Huron are focused around reducing habitat impairment and/or destruction, as well as addressing the leveling-off of declines of toxic contaminants. The Lake Huron Initiative, led by Michigan Department of Environmental Quality and partially funded through a cooperative agreement with GLNPO, has identified issues and efforts toward ensuring a sustainable Lake Huron watershed. *Priority Activities: Protecting key habitat, especially coastal wetlands, spawning reefs, and island habitat; prioritization of non-point source areas for funding through Section 319 and Clean Michigan Initiative funds; identification of dam removal demonstration projects to increase available fish habitat; the restoration of the Saginaw Bay ecosystem, including environmental dredging, non-point source controls, and habitat restoration; sea lamprey control, especially in St. Mary's River; support of clean-up efforts of Lake Huron tributaries, including AOCs; support of enforcement/compliance efforts to ensure reductions in atmospheric deposition; and the promotion of pollution prevention throughout the watershed.*

< **AOCs and Special Places.** Special attention is placed on geographic areas where beneficial use of water or biota is adversely affected or where environmental criteria are exceeded to the extent that use impairment exists or is likely to exist. The purpose of establishing "Areas of Concern" (AOCs) is to encourage jurisdictions to form partnerships to rehabilitate these acute, localized problem areas and to restore their beneficial uses.

* *Through ecosystem-based efforts, reduce toxic substances and protect/restore beneficial uses in the AOCs through community-based environmental protection. In supporting such efforts the Agency aims to enhance public communication and focus and coordinate implementation of all relevant Federal, State, and local media programs.*
* *Target multi-media regulatory and non-regulatory actions to achieve risk-based environmental improvements in and around the Niagara River, Northwest Indiana, Greater Chicago, Southeast Michigan, Northeast Ohio, and on Tribal Lands.*
* *Promote and support brownfields initiatives, including information dissemination to assist brownfields redevelopment in AOC communities.*

D. Support Federal-State-Tribal Partnership and Integration

- *Develop the new Great Lakes Strategy, expanding the participation of partners and forging linkages with the Government Performance and Results Act.*
- *Improve State and Tribal capability to address Great Lakes environmental problems through a cross-program approach based on environmental information.*
- *Initiate coordinated post-State of the Lakes Ecosystem Conference (SOLEC) indicator development, monitoring, information management, and reporting*
- *Provide broad access (including Federal and State agencies) to a common environmental database and analytical tools, facilitating Federal/State/Tribal information exchange.*

Appendix III

USEPA CONTACTS FOR GREAT LAKES PRIORITIES

USEPA's role in the Great Lakes is to steer the U.S. Great Lakes effort and to provide timely technical support and assistance, coordinating not only with U.S. partners, but also with Canadian counterparts. Our Great Lakes efforts are thus organized in a nested structure.

- USEPA's Great Lakes National Program Office (GLNPO) steers and coordinates activities at a Basin-wide level.
- Regional Teams and Programs steer and coordinate activities focusing on four of the five Great Lakes, their AOCs, and other targeted geographic areas. In Region 5, the Regional Teams serve leadership and coordinating roles. They influence funding decisions of USEPA media programs, such as Air, Water, and Waste, as well as National Initiatives, such as Brownfields. They can also help identify funding sources and priorities for LaMPs, RAPs, and other initiatives.
- Coordination and integration of State, Tribal, and Federal environmental programs is intended to be accomplished through Environmental Performance Partnership Agreements. Projects can also be developed outside of that structure.

Contacts for Programs and Teams who can best provide information about their Great Lakes priorities and funding opportunities are listed below. Since evaluations of the GLNPO Preproposals will take into account recommendations on specific needs and priorities of geographic areas within the Great Lakes, particularly those of LaMPs and RAPs, we especially encourage consultations. Note that e-mail addresses use the convention "lastname.firstname@epa.gov".

GLNPO:

- Contaminated Sediments: Marc Tuchman (312-353-1369)
- Pollution Prevention and Reduction: Rita Cestaric (312-886-6815)
- Habitat (Ecological) Protection: Karen Rodriguez (312-353-2690)
- Invasive Species: Marc Tuchman (312-353-1369)
- Indicator Development: Paul Bertram (312-353-0153)
- Strategic or Emerging Issues: Paul Horvatin (312-353-3612)
- http://www.epa.gov/glnpo/fund/glf.html.

USEPA REGION 2 (INCLUDING NY)

- Barbara Belasco (212-637-3848)

USEPA REGION 3 (INCLUDING PA)

- Evelyn MacKnight (215-814-5717)

REGION 5 (INCLUDING IL, IN, MI, MN, OH, AND WI)
"PRIORITY APPROACH" TEAMS

- Sediments: Bonnie Eleder (312-886-4885)
- Toxics Reduction: Dan Hopkins (312-886-5994)
- Ecosystem: John Perrecone (312-353-1149)
- Environmental Justice: Karla Owens (312-886-5993)

REGION 5 "PRIORITY GEOGRAPHIC/PLACE" TEAMS

- L. Erie: Francine Norling (312-886-0271)
- L. Michigan: Judy Beck (312-353-3849)
- L. Superior: Elizabeth LaPlante (312-353-2694)
- Northeast Ohio: Lyn Luttner (440-250-1711)
- Greater Chicago: Mardi Klevs (312-353-5490)
- NW Indiana: Sally Swanson (312-353-8512)
- SE Michigan: Laura Lodisio (312-886-7090)

REGION 5 WATER PROGRAM
Great Lakes RAP/LaMP funds

- Marcia Damato (312-886-0266)

Nonpoint Source Pollution

S Thomas Davenport (312-886-0209)

Water Pollution Control - State and Interstate Program Support.

- Headquarters - Carol Crow (202-260-6742)
- Regional - Gene Wojcik (312-886-0174)

AIR PROGRAM
Region 5 - Carlton Nash (312-886-6030)
Region 2 - Raymond Werner (212-637-3706)
HQ - Dale Evarts (919-541-5535)

SUPERFUND PROGRAM
Region 5 - James Hahnenberg (312-353-4213)
www.epa.gov/R5Super/

Brownfields
Region 5: James Van der Kloot (312-353-3161)
Region 3: Tom Stolle (215-814-3129)
Region 2: Larry D'Andrea (212-637-4314)

RCRA WASTE MANAGEMENT PROGRAM
Region 5: General §3011 - Richard Traub (312-353-8319); Haz. waste minimization/solid waste mgnt - Mary Setnicar (312-886-0976)
Region 3: Paul Gotthold (215-814-3410)
Region 2: Ray Basso (212-637-4109) and Michael Infurna (212-637-4177)

Pollution Prevention
Region 5: Phil Kaplan 312-353-4669
Region 3: Jeff Burke 215-814-2761
Region 2: Deborah Freeman 212-637-3584

PESTICIDES/TOXIC SUBSTANCES.
Region 5: Anton Martig (312-353-2291) for Toxics; Margaret Jones (312-353-5790) for Ag. Clean Sweeps
Region 3: Donald Lott (215-814-2041) for pesticides, lead, and asbestos; John Ruggero (215-814-2142) for PCBs and EPCRA
Region 2: Fred Kozak (908-321-6769) for Pesticides; David Greenlaw for Toxics (908-321-6817)

ENVIRONMENTAL EDUCATION.
HQ: Diane Berger/Sheri Jojokian (202-260-8619)
Region 5: Megan Gavin (312-353-5282)
Region 3: Larry Brown (215-814-5527)
Region 2: Teresa Ippolito (212-637-3671)

GREAT LAKES RESEARCH.
Inhouse research: Steven Bradbury (218-529-5025)
Science to Achieve Results (STAR) http://es.epa.gov/ncerqa/

Appendix IV

OTHER GLNPO ACTIVITIES AND FUNDING

GLNPO is actively involved in numerous Great Lakes activities. In the areas referenced below, we will coordinate at the Federal, State, Tribal, and local levels to ensure that these projects and resources are appropriately targeted to achieve mutual objectives. Staff are also available for consultation in these areas.

* **Lake ecosystem indicators.** Through atmospheric deposition monitoring and open lake monitoring in each Great Lake for toxicant and nutrient loads and concentrations (using EPA's research vessels), GLNPO will provide trend and baseline data to support and target remedial efforts and measure environmental progress. Open lake and nearshore

monitoring of biological communities will assess the health of and changes in the biological communities of the Great Lakes. In March, 2000, GLNPO will hold a workshop to investigate trends in Great Lakes phosphorus levels and to discuss the controversial topics of phosphorus controls and additions. Additional information is available from Paul Horvatin (312-353-3612), Chief of GLNPO's Monitoring, Indicators, and Reporting Branch.

* **Shared Ship Time.** The USEPA, GLNPO ship, the R/V Lake Guardian will be conducting surveys of all the lakes this year. If your research requires Great Lakes sampling that is compatible with our survey schedule and requires only small additions of time to the surveys, please contact Glenn Warren (312-886-2405) to discuss how we may be able to accommodate your needs. The tentative schedule for the R/V Lake Guardian can be found at: < www.epa.gov/glnpo/guard/schedule_2001.html >

* **Great Lakes Limnology Course.** GLNPO is requesting proposals for use of the R/V Lake Guardian during the summer of 2001, to conduct a Limnology course on the Great Lakes. GLNPO would provide the ship time as well as two environmental scientists. The recipient of the award would be responsible for designing the course, providing at least two instructors, advertising through appropriate venues, and performing other administrative functions associated with the course. Special preference will be given to recipients who can offer a diverse pool of students, from various institutions across the Great Lakes Region, equal opportunities to participate. Additional information is available from Sandra Hellman (312-353-5006).

* **Manage and provide public access to Great Lakes data.** EPA's integrated Great Lakes information system, developed by GLNPO and its State and Federal partners, will deliver LMMB, and other, scientifically sound, easily accessible environmental information to decision makers and the public by traditional means and via the Internet. GLNPO will pilot techniques to provide public access to LMMB data via the Internet. Additional information is available from Pranas Pranckevicius (312-353-3437), leader of GLNPO's Information Management Team.

* **Great Lakes Coastal Wetlands Consortium.** GLNPO awarded $400,000 in December, 2000 for a Coastal Wetlands Consortium. The Consortium consists of institutions/organizations headed by the Great Lakes Commission and representing a binational, multi-disciplinary, broad-based consortium of Great Lakes wetland scientists. The ultimate goal of the work to be accomplished through the Consortium will be an implementable, long-term program, based on SOLEC Coastal Wetlands and related indicators, that monitors Great Lakes coastal wetlands consistently and allows a scientifically-sound assessment of their ecological integrity. GLNPO expects to award an additional $400,000 in 2001 to support Consortium work Additional information is available from Duane Heaton (312-886-6399).

* **Ecological Protection and Restoration Conferences.** $100,000 is available in small amounts, through grant or procurement requests, to co-sponsor appropriate conferences and publication reprints. Requests are reviewed by GLNPO staff on a first-come, first serve basis throughout the year and as long as money is available. GLNPO managers approve staff recommendations. Additional information is available from Karen Rodriguez (312-353-2690).